OPERATING SYSTEM - CS23431

EXP 6(A)

FIRST COME FIRST SERVE

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PROGRAM:

```
#include <stdio.h>

int main() {

int n, i; printf("Enter number of processes: "); scanf("%d", &n);

int bt[n], wt[n], tat[n];


printf("\nEnter burst time for each process:\n");
for (i = 0; i < n; i++) {
   printf("P[%d]: ", i + 1);
   scanf("%d", &bt[i]);
}

wt[0] = 0;
for (i = 1; i < n; i++) {
   wt[i] = wt[i - 1] + bt[i - 1];
}

for (i = 0; i < n; i++) {
   tat[i] = bt[i] + wt[i];
}

int total_wt = 0, total_tat = 0;
for (i = 0; i < n; i++) {
   total_wt += wt[i];
   total_tat += tat[i];
}

printf("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n");
for (i = 0; i < n; i++) {
   printf("P[%d]\t%5d\t\t%5d\t\t%5d\n",
```

```
        i + 1, bt[i], wt[i], tat[i]);
}


printf("\nTotal waiting time     = %d\n", total_wt);
printf("Total turnaround time = %d\n", total_tat);
printf("Average waiting time   = %.2f\n", (float)total_wt / n);
printf("Average turnaround time = %.2f\n", (float)total_tat / n);

return 0;


}
```

OUTPUT:

```
[student@localhost ~]$ ./a.out
Enter number of process: 3

Enter burst time for each process: 24
3
3
Process  Burst time  Waiting time  Turn Around Time
0  24  0  24
1  3  24  27
2  3  27  30

Total waiting time is: 51
Total turn around time is: 81
Average waiting time is: 17
Average turn around time is: 27
[student@localhost ~]$
```